

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
690 Walnut Ave. St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 13.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-010721**Date Inspected:** 07-Dec-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 1000**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1830**Contractor:** Oregon Iron Works Clackamas, Or.**Location:** Clackamas, OR**CWI Name:** M. Gregson, J. Salazar**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Hinge K Pipe Beams**Summary of Items Observed:**

The Quality Assurance Inspector Sean Vance arrived on site at Oregon Iron Works, Inc (OIW) in Clackamas, OR, to randomly observe the in process welding of the Hinge K Pipe Beam assemblies. The QA Inspector arrived on site to randomly observe the OIW Quality Control (QC) Inspectors in process and completed visual and nondestructive testing. Upon the arrival of the QA Inspector the following observations were made:

Hinge-K Pipe Beam Assembly 102A-3: 12/7/09

a111-3 Forging to a110-3 Base Plate

QA Inspector noticed that the partial joint penetration and fillet welds, designated as weld joints #W1-01 thru W1-163, were previously completed and OIW production personell were in-process of performing weld clean-up, on the above mentioned stiffeners. QA Inspector spoke with QC Inspector Jose Salazar and Mr. Salazar explained that OIW welder # O6, Mr. Tim O'Brian was continuing to blend the weld start/stops, removing weld spatter and grinding all areas, which were previously marked by OIW QC Inspectors. Mr. Salazar explained that the visual clean-up that was being performed by Mr. O'Brian, was intermittently monitored by Mr. Salazar and areas that were previously marked up and completed, were then visually re-inspected, per AWS D1.5 and contract requirements. Mr. Salazar explained that minor underfill was previously FCAW repaired by Mr. O'Brian on weld joint #W1-100, piece mark e108 to a107. Mr. Salazar explained that he was present during the welding and recorded in-process parameters 262 amps/26.2 volts with a pre-heat temperature of 400 degrees Fahrenheit (204 C). QA Inspector noted that welding procedure specification (WPS 4020) was utilized for the repair. QA Inspector noted that the in-process visual testing by OIW QC Inspector Jose Salazar and welding performed by Mr. O'Brian, appeared to be in compliance with AWS D1.5 and contract requirements.

QA Inspector was notified by QC Inspector Jose Salazar that 2 critical weld repairs (CWR's), will be required for

WELDING INSPECTION REPORT

(Continued Page 2 of 2)

the weld joints designated as # W1-146, W1-142 and W1-143. Mr. Salazar explained that during the magnetic particle inspection on these weld joints, linear indications were present. Mr. Salazar explained that Mr. Tim O'Brian had performed the excavations, to depths of approximately 2-4mm and the indications were still present. QA Inspector verified the excavated areas to be approximately 40mm long and 4mm deep (WJ #146) and 2-10mm long/2mm deep (WJ #142/143). QA Inspector verified that the indications were still present and still needed further excavation, requiring Critical Weld Repairs. QA Inspector noted that these CWR's 009 and 010 were submitted by OIW and are pending approval. See attached pictures below.

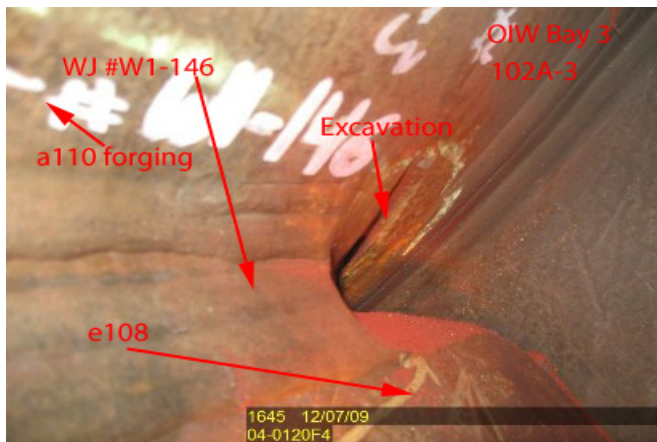
Material, Equipment, and Labor Tracking

QA Inspector Sean Vance performed a verification of material, personnel and equipment involved with the project.

The QA Inspector observed at Oregon Iron Works: 2 OIW production personnel and 2 QC Inspectors.

The QA Inspector noted that the following personell were present at AG Machine shop: 1 machinist and 1 supervisor.

The QA Inspector noted that no work was performed at OIW Vancouver paint shop.



Summary of Conversations:

As noted above.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mohammad Fatemi (916) 813-3677, who represents the Office of Structural Materials for your project.

Inspected By:	Vance,Sean	Quality Assurance Inspector
Reviewed By:	Adame,Joe	QA Reviewer
